CLAIMS:

1. Writable optical disc for use in a recording device with an objective lens having an aperture NA comprising a plurality of recording layers L0,..., Ln-1 separated by a spacer material each time, each of the recording layers comprising an optimum power calibration area, wherein at least the optimum power calibration areas of the layers L0,..., Ln-2 or L1,..., Ln-1 have a first portion with an average reflection value representative of a recorded layer, the optimum power calibration areas of each recording layer L0,..., Ln-1 have a second portion with an average reflection value representative of an unrecorded layer, and said optimum power calibration areas partially overlap such that the first portions of each pair of consecutive recording layers Lk, Lk+1 form a step with a minimum step size $w_{k,k+1}$ of

$$w_{k,k+1} = 2\varepsilon + \frac{NA}{\sqrt{n_m^2 - NA^2}} \cdot \Delta_{k,k+1},$$

wherein ε denotes the maximum radial misalignment of each recording layer, $\Delta_{k,k+1}$ denotes the thickness of the spacer material between the consecutive layers Lk and Lk+1, and n_m is the refractive index of the spacer material, and wherein the first portions of said plurality of recording layers have the form of a staircase.

2. Writable optical disc according to claim 1, characterized in that said optimum power calibration areas are arranged near the center of said disc, said first portions forming concentric circles.

3. Writable optical disc according to claim 1, characterized in that said optimum power calibration areas are arranged near the periphery of said disc, said first portions forming concentric circles.

4. Writable optical disc according to claim 2 or 3, characterized in that the radiuses of the concentric circles decrease from recording layer to recording layer, viewed in a direction away from the light beam incidence side of said disc.

5. Writable optical disc according to claim 2 or 3,
characterized in that the radiuses of the concentric circles increase from recording layer to recording layer, viewed in a direction away from the light beam incidence side of said disc.

6. Method of forming optimum power calibration areas on a writable optical disc, said disc comprising a plurality of recording layers L0,..., Ln-1 separated by a spacer material, wherein marks are written on said recording layers by means of a writing recording device with an objective lens having an aperture NA, thereby forming an optimum power calibration area on each of the recording layers such that at least the optimum power calibration areas of the layers L0,..., Ln-2 or L1,..., Ln-1 have a first portion with an average reflection value representative of a recorded layer, the optimum power calibration areas of each recording layer L0,..., Ln-1 have a second portion with an average reflection value representative of an unrecorded layer, and said optimum power calibration areas partially overlap such that the first portions of each pair of consecutive recording layers Lk, Lk+1 form a step with minimum step size of

$$w_{k,k+1} = 2\varepsilon + \frac{NA}{\sqrt{n_m^{\,2} - NA^2}} \cdot \Delta_{k,k+1},$$

wherein ε denotes the maximum radial misalignment of each recording layer, $\Delta_{k,k+1}$ denotes the thickness of the spacer material between the consecutive layers Lk and Lk+1, and n_m is the refractive index of the spacer material, and wherein the first portions of said plurality of recording layers have the form of a staircase.

7. Method according to claim 6,
characterized in that said optimum power calibration areas are written near the center of said disc, said first portions forming concentric circles.

8. Method according to claim 6,
characterized in that said optimum power calibration areas are written near the periphery of said disc, said first portions forming concentric circles.

9. Method according to claim 7 or 8,
characterized in that said optimum power calibration areas are written such that the radiuses

of the concentric circles decrease from recording layer to recording layer, viewed in a direction away from the light beam incidence side of said disc.

10. Method according to claim 7 or 8,
characterized in that said optimum power calibration areas are written such that the radiuses of the concentric circles increase from recording layer to recording layer, viewed in a direction away from the light beam incidence side of said disc.

11. Apparatus arranged for recording data on a writable optical disc, said disc comprising a plurality of recording layers L0,..., Ln-1 having a maximum radial misalignment ε and being separated by a spacer material having a thickness $\Delta_{k,k+1}$ between every two consecutive layers Lk, Lk+1 and a refractive index n_m, said apparatus comprising

a writing unit with an objective lens having an aperture NA, said writing unit being arranged for writing marks on said recording layers,

a control unit arranged for controlling said writing unit such that marks are written at predetermined positions of said recording layers, thereby forming an optimum power calibration area on each of the recording layers, wherein at least the optimum power calibration areas of the layers L0,..., Ln-2 or L1,..., Ln-1 have a first portion with an average reflection value representative of a recorded layer, the optimum power calibration areas of each recording layer L0,..., Ln-1 have a second portion with an average reflection value representative of an unrecorded layer, and said optimum power calibration areas partially overlap such that the first portions of each pair of consecutive recording layers Lk, Lk+1 form a step with a minimum step size of

$$w_{k,k+1} = 2\varepsilon + \frac{NA}{\sqrt{n_m{}^2 - NA^2}} \cdot \Delta_{k,k+1},$$

and wherein the first portions of said plurality of recording layers have the form of a staircase.

12. Apparatus according to claim 11,
characterized in that said apparatus further comprises

means for deriving information from said writable optical disc corresponding to the maximum radial misalignment ε of each recording layer, the thickness $\Delta_{k,k+1}$ of the

spacer material between two consecutive layers Lk, Lk+1, and the refractive index n_m of the spacer material.

13. Apparatus according to claim 11, characterized in that said control unit is further arranged for storing information corresponding to the maximum number of tracks recorded in the second portion of any layer during an OPC-procedure and furthermore for writing marks on the other layers such that the same number of tracks are recorded in the second portions of the OPC areas of all layers.